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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,722	10/28/2003	Ari Hourunranta	869.0001.U1(US)	5538

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EXAMINER	
AN, SHAWN S	
ART UNIT	**PAPER NUMBER**
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/695,722	HOURUNRANTA, ARI	
	Examiner	Art Unit	
	Shawn S. An	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8,9 and 11-19* is/are rejected.

7)☒ Claim(s) *6,7 and 10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/433,490.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/28; 4/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Preliminary Amendment

1. As per Applicant's instructions as filed on 12/05/03, claim 19 has been newly added.

Response to Remarks

2. Applicant's remarks filed on 12/05/03 have been fully considered but are not persuasive.

Applicant argues there is no teaching in Pickering or in Murphy references that one must detect both the errors before transformation and the error after transformation, therefore, there is no motivation to combine the two teachings to make claim 1 obvious. Applicant further argues that two references are contradictory in the implementation of the transformation, thereby directing one away from a combination of their respective teaching.

In response, it is a fact that Pickering and/or in Murphy references does not detect both the errors before transformation and the error after transformation. However, the claim does not state one *must detect both* the errors before transformation and the error after transformation, but only detects an error in the block, as a response to *either* of the first and second reference values being greater than the first and respectively the second threshold value (emphasis added on conditional detection). Importantly, the claim 1 detects both errors (one error or the other error at a time) only after the transformation and generation of the second reference value, and by choosing *either* of the first and second reference values being greater than the first and respectively the second threshold value, which can't be interpreted as detecting *both the errors before transformation* and the error after transformation.

As discussed in the last Office action from parent application 09/433,490 as filed on 4/28/03, Pickering discloses all of the claimed subject matter with the exception of generating a first reference value representing the variations in information about spatial frequency distribution within the block, comparing the first reference value to a first

threshold, and detecting an error in the block when the first reference value is greater than the first threshold value.

However, Murphy et al teaches generating a first reference value representing the variations in information about spatial frequency distribution within the block, comparing the first reference value to a first threshold, and detecting an error in the block when the first reference value is greater than the first threshold value for providing an improved method/apparatus for detecting presence of errors in a video signal (Fig. 4; col. 1, lines 45-47). In other words, Murphy's reference is teaching substantially the same claimed concepts as Pickering, with only one difference being the generation of a signal prior to the transformation, whereas Pickering claimed concept is based on generation of a signal after the transformation.

Furthermore, in contrast to Applicant's assertion that two references are contradictory in the implementation of the transformation, its rather one reference teaching the generation of a signal prior to the transformation, whereas other reference (Pickering) teaching the generation of a signal after the transformation, of which neither has to contradict one another in the implementation of the transformation, but rather an alternative/variation method in detecting presence of errors in a video signal, because as stated above, the claim 1 detects both errors (one error or the other error at a time) only after the transformation and generation of the second reference value, and by choosing *either* of the first and second reference values being greater than the first and respectively the second threshold value .

Therefore, it would have been considered obvious to a person of ordinary skill in the relevant art employing a method for decoding compressed video as taught by Pickering et al to incorporate/combine the Murphy's teaching as discussed above so as to generate a first reference value representing the variations in information about spatial frequency distribution within the block, to compare the first reference value to a first threshold, and to detect an error in the block, as a response to *either* of the first and second reference values being greater than the first and respectively the second threshold value as an alternative method for providing an improved method/apparatus for detecting presence of errors in a video signal (motivation).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4, 8-9, 11-12, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pickering et al (XP-000898158) in view of Murphy et al (5,745,169) as previously discussed in the last Office action from parent application 09/433,490 as filed on 4/28/03.

Note: the detailed rejection will not be repeated since the currently pending claims 1-4, 8-9, 11-12, and 14-18 are identical to the corresponding claims 1-4, 8-9, 11-12, and 14-18 rejected in the last Office action from parent application 09/433,490 as filed on 4/28/03.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pickering et al and Murphy et al as applied to claim 1 above, and further in view of Shimoda et al (5,703,889) as previously discussed in the last Office action from parent application 09/433,490 as filed on 4/28/03.

Note: the detailed rejection will not be repeated since the currently pending claim 5 is identical to the corresponding claim 5 rejected in the last Office action from parent application 09/433,490 as filed on 4/28/03.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pickering et al and Murphy et al as applied to claim 2 above, and further in view of Murata (5,535,013) as previously discussed in the last Office action from parent application 09/433,490 as filed on 4/28/03.

Note: the detailed rejection will not be repeated since the currently pending claim 13 is identical to the corresponding claim 13 rejected in the last Office action from parent application 09/433,490 as filed on 4/28/03.

7. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pickering et al (XP-000898158) in view of Murphy et al (5,745,169) and Shimoda et al (5,703,889).

Regarding claim 19, Pickering et al in view of Murphy et al discloses substantially all of the claimed limitations (with the exception of one feature, see next paragraph), which is substantially similar with respect to claim 1 as discussed above. Pickering et al discloses the second test comprising its detailed limitations, and Murphy et al teaches the first test comprising its detailed limitations (see claim 1 discussion).

Pickering et al and Murphy et al fail to disclose dividing DCT coefficients of the video data block into at least a low-frequency group and a high-frequency group.

However, Shimoda et al teaches an error detecting decoder comprising a concept of dividing DCT coefficients of the video data block into at least a low-frequency group and a high-frequency group so that low-frequency group/components are free from the influence of errors caused in the high-frequency group/components, thereby reducing a visual deterioration (abs.; Fig. 24, 92; col. 23, lines 51-54).

Therefore, it would have been considered obvious to a person of ordinary skill in the relevant art employing a method for decoding compressed video as taught by Pickering et al to incorporate/combine the Murphy's teachings as discussed above so as to generate a first reference value representing the variations in information about spatial frequency distribution within the block, to compare the first reference value to a first threshold, and to detect an error in the block, as a response to either of the first and second reference values being greater than the first and respectively the second threshold value as an alternative method for providing an improved method/apparatus for detecting presence of errors in a video signal, and also incorporate Shimoda et al's teaching as above so that low-frequency group/components are free from the influence

of errors caused in the high-frequency group/components, thereby reducing a visual deterioration.

Allowable Subject Matter

8. Claims 6-7 and 10 are objected to as being dependent upon rejected base claim 1, but would be allowable:

if claim 6 is rewritten in independent form including all of the limitations of the base claim 1 and any intervening claims; or

if claim 10 is rewritten in independent form including all of the limitations of the base claim 1 and any intervening claims.

Dependent claims 6 and 10 recite novel features (claims 6 and 10 each as a whole emphasized), wherein the prior art of record fails to anticipate or make obvious the novel features.

Accordingly, if the amendments are made to the claims listed above, and if rejected claims are canceled, the application would be placed in condition for allowance.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

A) Nakatani et al (5,708,732), Data processor using orthogonal transformation.

B) Chien et al (5,621,467) Temporal spatial error concealment apparatus/method.

C) Hourrunranta (EP 0,999,709 A2), Error detection in low bit rate transmission.

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S. An* whose telephone number is 571-272-7324.

11. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SHAWN AN
PRIMARY EXAMINER

3/22/07